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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,804	06/27/2001	Dimitri Kanevsky	728-211 (YOR9-2001-0314 U	3552

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EXAMINER	
LEE, PING	

ART UNIT	PAPER NUMBER
2644	4

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/892,804	KANEVSKY ET AL.	
	Examiner	Art Unit	
	Ping Lee	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 August 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 17-26* is/are rejected.

7)☒ Claim(s) *15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17 recites the limitation "the warning system" in 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11 and 23 is rejected under 35 U.S.C. 102(b) as being anticipated by Freifeld et al (US 4,061,875).

Regarding claim 11, Freifeld et al (hereafter Freifeld) disclose a system for controlling a volume output by a set of headphones (22) to prevent harmful sound levels from damaging a user hearing (col. 1), the system comprising a volume sensor/controller for: determining sound levels from an audio source setting a volume threshold (as shown in Fig. 1); receiving audio signals from an audio source (col. 4, line

22; "average input volume"); comparing the determined sound levels to a volume threshold (col. 4 lines 21-23); and adjusting a volume output of the headphone to a level below the volume threshold if the determined sound level is above the volume threshold (col. 4, lines 18-20, 59-61).

Regarding claim 23, Freifeld further shows the volume calibrator for setting the threshold ("a predetermined value"; col. 4, line 22) and a volume control mode (14)

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 4, 7 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Svean et al (US 6,567,524).

Regarding claims 1, 4, 7 and 18, Svean et al (hereafter Svean) discloses a system for controlling a volume output by a set of headphones (col. 11, lines 56-60)) to prevent harmful sound levels from damaging a user's hearing, the system comprising: a volume sensor/controller (42-26) for determining sound levels from an audio source (CD) and comparing (47) the predetermined sound levels to a volume threshold (col. 11, lines 46-50); and a warning indicator (col. 11, lines 50-55) for indicating that the determined sound level is outside the volume threshold.

Regarding claim 3, Svean shows a volume calibrator (47) for setting the volume threshold; a volume/frequency measurement sensor for representing the determined sound levels as energy functions (43); and a comparator (47) for comparing the determined sound levels with the volume threshold and notifying the warning indicator that the volume threshold has been exceeded.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freifeld in view of Svean.

Regarding claims 24-26, Freifeld fails to show the warning indicator. Svean teaches not only the local warning to inform the user that the input volume has exceed the threshold, the warning signal is also being transferred to a remote location. Although Svean fails to explicitly show network for transmission, it was within the level of ordinary skill in the art to use the network to transmit information to remote location. Thus, it would have been obvious to one of ordinary skill in the art to modify Freifeld's system by incorporating the local and remote warning transmission as taught in Svean in order to inform the user and the health care provider about the situation.

10. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Svean in view of Short et al (US 4,538,296).

Regarding claims 5 and 6, Svean fails to show visual indicator. Short et al (hereafter Short) teaches how to use a plurality of LEDs to indicate that the sound level is above the limit. The visual indication would provide another form of warning for someone having hearing impairment or for adults monitoring the child who wears the headphone. Although Short fails to show LCD, this type of indicator was well known to those in the art to provide similar function. Thus, it would have been obvious to one of ordinary skill in the art to modify Svean's system by incorporating visual indicator, such as LEDs as taught in Short or LCD together with the audible warning in order to not only inform user through audible warning, but also visual indication for both the user and/or people physically closed to the user.

11. Claims 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Svean in view of Lovejoy (US 5,046,101).

Regarding claim 2, Svean fails to show that the sound levels are represented as energy functions according to their respective frequencies. It was well known in the art that the spectrum of the hearing threshold did not have equal amplitude for all the frequencies. Svean teaches a device taking into the consideration of only the peak and average values. Lovejoy teaches a device which would determine the energy of sound level in different frequencies and compare those sound levels with corresponding thresholds (col. 6, lines 38-54). Thus, it would have been obvious to one of ordinary skill in the art to modify Svean's system in view of Lovejoy by comparing the sound levels in different frequencies with the respective threshold levels in order to more accurately determine whether the incoming signal level having amplitude exceeding the limit for each frequency.

12. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Svean.

Regarding claim 19 and 20, Svean teaches a DSP for providing warning indicator (Fig. 2) and a database for storing history (col. 11, line 53-55), but fails to show the PC and how to program the DSP. It was well known in the art that a PC could be used to program the DSP to process the audio signal as taught in Svean. Thus, it would have been obvious to one of ordinary skill in the art to modify Svean by using a PC for programming the DSP to process the audio signal in order to set the DSP to perform the processing function.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Svean in view of Altstatt (US 5,771,441).

Regarding claim 22, Svean teaches that a CD player is connected to the headphone, but fails to show the wireless connection. Altstatt teaches a wireless transmitter for CD player and a wireless receiver on the headphone. Thus, it would have been obvious to one of ordinary skill in the art to modify Svean by incorporating the wireless transmitter and the receiver as taught in Altstatt in order to allow the listener to have greater freedom without having the wire dangling around the headphone.

14. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freifeld in view of Lovejoy (US 5,046,101).

Regarding claim 12, Freifeld fails to show that the sound levels are represented as energy functions according to their respective frequencies. It was well known in the art that the spectrum of the hearing threshold did not have equal amplitude for all the frequencies. Freifeld teaches a device taking into the consideration of only the peak or the average value. Lovejoy teaches a device which would determine the energy of sound level in different frequencies and compare those sound levels with corresponding thresholds (col. 6, lines 38-54). Thus, it would have been obvious to one of ordinary skill in the art to modify Freifeld's system in view of Lovejoy by comparing the sound levels in different frequencies with the respective threshold levels in order to more accurately determine whether the incoming signal level having amplitude exceeding the limit for each frequency.

15. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freifeld in view of Lovejoy as applied to claim 13 above, and further in view of Knappe et al (US 6,061,431).

Regarding claim 14, Freifeld shows the volume control mode selector allowing the user to select between an automatic (by compressor with automatic gain control capability) or manual volume control mode (47; col. 7, lines 39-40). Freifeld fails to show the category selector and a category data base. Freifeld teaches that the headphone could be customized according to individual's hearing having hearing loss (col. 6, lines 35-57). Freifeld also teaches that the headphone is being worn at a work place; wherein the workers might share the same headphone. Knappe teaches a data base for storing the volume control settings for different users based on their respective hearing compensation requirement. Thus, it would have been obvious to one of ordinary skill in the art to further modify Freifeld and Lovejoy in view of Knappe by having a category selector and a category data base in order to allow the different users with different hearing loss to share the same headphone at the work place.

16. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Svean in view of Hanson et al (US 5,317,273).

Regarding claim 21, Svean fails to show warning indicator being provided on a remote hand held device. Hanson et al (hereafter Hanson) teaches how to use a hand held device with warning indicator to inform the user. The visual indication would provide another form of warning for someone having hearing impairment or for adults monitoring the child who wears the headphone. Thus, it would have been obvious to

one of ordinary skill in the art to modify Svean's system in view of Hanson by incorporating visual indicator in a hand held device in order to not only inform user through audible warning, but also visual indication for both the user and/or people physically closed to the user.

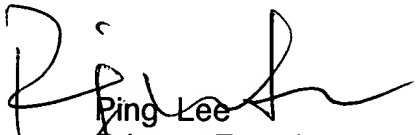
Allowable Subject Matter

17. Claims 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable over the prior art in the record if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 703-305-4865. The examiner can normally be reached on Monday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ping Lee
Primary Examiner
Art Unit 2644

pwl